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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,242	12/03/2001	Toshihide Kuriyama	Q67488	5484

7590 02/23/2005

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EXAMINER	
PHAM, TUAN	

ART UNIT	PAPER NUMBER
2643	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/998,242	KURIYAMA ET AL.	
	Examiner	Art Unit	
	TUAN A PHAM	2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *6/14/02, 4/9/04*, 7/8/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 06/14/2002, 04/09/2004, and 07/08/2004 has been considered by Examiner and made of record in the application file.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1 and 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pye et al. (U.S. Patent No.: 5,337,061, hereinafter, "Pye") in view of Kivela (U.S. Patent No.: 6,005,525).

Regarding claim 1, Pye teaches a compact cellular phone in which a pair of housings formed in an approximate flat shape is flip connected by using a hinge (see figure 1), the compact cellular phone comprising: two planar antennas provided to the pair of housings (see figure 3-5, col.2, ln.12-52).

It should be noticed that Pye fails to teach highly sensitive surface of the planar antennas is directed outward in a state in which the compact cellular phone is closed. However, Kivela teaches such features (see figure 11, col.9, ln.25-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Kivela to Pye, in order to reduce the radiation toward to the body as suggested by Kivela at column 1, lines 30-40).

Regarding claim 3, Pye further teaches the compact cellular phone wherein the two planar antennas are provided outermost inside the pair of housings, respectively, in a state in which the compact cellular phone is closed (see figure 3-5, col.2, ln.12-52).

Regarding claim 4, Pye further teaches the compact cellular phone wherein the two planar antennas are two planar inverse F-type antennas or two patch antennas (see col.5, ln.50-54).

Regarding claim 5, Pye further teaches the compact cellular phone wherein when the compact cellular phone is used while being closed in a waiting state, both of the two planar antennas or either one of the two planar antennas is used to send or receive, and when the compact cellular phone is used while being open in a communication state, one of the two planar antennas, which has the better transmission state, is selected to send and receive (see figure 3-5, col.2, ln.12-52).

Regarding claim 6, Pye further teaches the compact cellular phone wherein wherein by detecting and evaluating an impedance change and a physical quantity of a reflective wave caused by said impedance change on an electric-power transmission path provided inside the compact cellular phone, one of the two planar antennas, which has preferred transmission characteristics, is determined, selected, and then used (see col.3, ln.1-58).

5. **Claims 2 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pye et al. (U.S. Patent No.: 5,337,061, hereinafter, "Pye") in view of Kivela (U.S. Patent No.: 6,005,525) as applied to claim 1 above, and further in view of Narayanaswamy et al. (U.S. Patent No.: 5,905,467, hereinafter, "Narayanaswamy").**

Regarding claim 2, Pye and Kivela, in combination, fails to teach an interval between the two planar antennas provided to the pair of housings is equal to or wider than a width of a human palm in a state in which the compact cellular phone is open.

However, Narayanaswamy teaches such features (see figure 2, antenna 204, antenna 205).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Pye and Kivela to Narayanaswamy, in order to reduce the signal by user's head as suggested by Narayanaswamy at column 1, lines 43-56.

Regarding claim 7, Pye further teaches the compact cellular phone wherein the two planar antennas are provided outermost inside the pair of housings, respectively, in a state in which the compact cellular phone is closed (see figure 3-5, col.2, ln.12-52).

Regarding claim 8, Pye further teaches the compact cellular phone wherein the two planar antennas are two planar inverse F-type antennas or two patch antennas (see col.5, ln.50-54).

Regarding claim 9, Pye further teaches the compact cellular phone wherein when the compact cellular phone is used while being closed in a waiting state, both of the two planar antennas or either one of the two planar antennas is used to send or receive, and when the compact cellular phone is used while being open in a communication state, one of the two planar antennas, which has the better transmission state, is selected to send and receive (see figure 3-5, col.2, ln.12-52).

Regarding claim 10, Pye further teaches the compact cellular phone wherein by detecting and evaluating an impedance change and a physical quantity of a reflective wave caused by said impedance change on an electric-power transmission path provided inside the compact cellular phone, one of the two planar antennas, which has

preferred transmission characteristics, is determined, selected, and then used (see col.3, ln.1-58).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In order to expedite the prosecution of this application, the applicants are also requested to consider the following references. Although Ying et al. (U.S. Patent No. 6,442,400), Sadler et al. (U.S. Patent No. 6,011,519), Iwai et al. (U.S. Patent No. 6,806,835), and Matsumoto (U.S. Patent No. 5,451,965) are not applied into this Office Action; they are also called to Applicants attention. They may be used in future Office Action(s). These references are also concerned for supporting the system and method for providing dipole antenna for mobile terminal.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (703) 305-4987. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (703) 305-4708 and

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington VA, Sixth Floor (Receptionist, tel. No. 703-305-4700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
February 18, 2005
Examiner

Tuan Pham

CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600